

LOFTUS
URBAN DISTRICT COUNCIL
AND THE
PORT SANITARY AUTHORITY

REPORTS
for the Year 1951

of the Medical Officer of Health
W. H. BUTCHER, V.R.D., M.A.,
D.M., D.P.H., BARRISTER - AT - LAW,
SURGEON COMMANDER R.N.V.R.





Digitized by the Internet Archive
in 2017 with funding from
Wellcome Library

<https://archive.org/details/b29739184>

TO THE CHAIRMAN AND MEMBERS
OF THE
LOFTUS URBAN DISTRICT COUNCIL.

MR. CHAIRMAN, MADAM AND GENTLEMEN,

I beg to submit my fifth Annual Report for 1951, the contents and arrangement of which are in accordance with the Ministry of Health's Circular 42 51.

I should commence by recounting how excellently the health of the District has been maintained during the year; and indeed it has, if we confine ourselves to the contents of Table 5—Notifiable Diseases. To-day scarlet fever is a negligible disease, at least in Britain: diphtheria does not figure at all, nor need it figure again except as a rare disease, provided seventy-five per cent or more of the children are allowed by their parents to be protected by the simple procedure of immunization; whooping cough and measles still appear and are responsible, particularly the former, for a certain amount of permanent damage and consequent disablement to some individuals. Moreover your death-rate and infant mortality rate are satisfactory and the children in your schools are mainly healthy on leaving. But, if I take a wider conception of disease, then the position is not so good as far as I can judge by what I myself observe or read, for as regards a large amount of ill-health I have no statistics, but must glean what I know where and how I can. The surgeries of the family doctors appear full: the pharmaceutical chemists are busy: in addition to the gallons of medicine drunk under the National Health Service a roaring trade is done in proprietary preparations; so there would appear to be much ill-health among us and it may well be asked of what disorders is it composed? Here I have to rely largely on the indirect evidence afforded by an enquiry conducted by Prof. D. M. Dunlop (British Medical Journal, 9th February, 1952) and two colleagues from the Department of Therapeutics of the University of Edinburgh in which over 17,000 prescriptions distributed among English practices of different types and in different parts were analysed. No less than 15 per cent of all drugs prescribed was for the purpose of soothing the nerves and inducing sleep. The conclusion reached by these investigators is that except for the minor infections, such as coughs, colds, etc., 55 per cent of the drugs prescribed was for the treatment of disorders not entirely physical, or even predominantly physical, but containing a large nervous or emotional element—disorders affecting body and mind, predominantly mind, or even mind alone. Such disorders by themselves may or may not shorten life, but they prevent the individual getting the full zest out of life and diminish his or her efficiency in the community. That such disorders have been increasing during the last thirty years or more is the impression of several observers. Since the individual is the product of his environment in the widest sense of the term, it is a self-evident truth that the causes of these disorders, as in the case of germ-caused diseases such as scarlet fever or enteric, must be sought in the environment, in the conditions under which the individual lives—I do not restrict the meaning of conditions to physical ones only—in his ways of living, his habits and his reactions to events.

In Appendix A I reproduce my report to the Public Health Committee of February, 1952, on Water Supplies. My reasons for anticipating the Annual Report for 1952 are first the urgency of the matter of your water supplies and second the fact that I had collected the material for the report during the years 1949, 1950 and 1951. I feel that the Local Sanitary Authority should consider whether the time has not arrived when it should cease to countenance any more conversions until more water is available. I am aware that to advise such a deliberation is a most serious step, but I consider that the position is a serious one too until more water is obtainable from some source or another.

In conclusion I wish to thank the Chairman and members of the Public Health Committee for their warm encouragement throughout the year, Mr. J. Baston and his successor Mr. Ellison, for their co-operation and Mr. E. Hollis, for his valuable help on all occasions. My administrative work has been made less onerous by the willing labour of Miss M. Imeson and Miss J. Waite.

I am, Madam and Gentlemen,

Your obedient servant,

W. H. BUTCHER,

Medical Officer of Health.

BROTTON,

1st May, 1952.

TABLE 1
Public Health Officers

Whole Time Officers	Guisborough Urban District	Skelton & Brotton Urban District	Loftus Urban District
Medical Officer of Health also District Medical Officer No. 4 Area N.R.C.C.	Dr. W. H. Butcher		
Sanitary Inspectors	Mr. J. A. Thompson*	Mr. J. Pattison	Mr. E. Hollis*
Additional Sanitary Inspectors	Mr. E. Ward		

*Also Surveyor of the district concerned

SECTION I

Vital Statistics and Social Conditions

The Registrar-General's estimate of the population of the district in the mid-year 1951 was 7,346, as compared with one of 7,454 for the mid-year 1950.

I am indebted to the Council's Financial Officer who has supplied me with the following figures:—

1. Area in acres	9,974
2. No. of inhabited houses according to rate books	2,232
3. Rateable Value	£31,230
4. Sum represented by a penny rate	£107

The district consists of the neat country town of Loftus, the industrial communities of Skinningrove and part of Carlin How and the hamlets of Liverton, Scaling, Easington, Street Houses and Cowbar. These are situated amidst agricultural lands studded with farms, while to the south lie moors to the height of nearly 1,000 feet above sea level. The whole is intersected by deeply cut wooded valleys. To the north there is a coast-line of bold cliffs attaining to the height of 699 feet, the highest cliff in England and Wales. The principal industries within the district are the Skinningrove Iron and Steel Works and agriculture. It is pleasant to record that the emission of black smoke or fumes from these great works is within satisfactory limits. Cleveland is associated in the popular imagination with ironstone mining, but only one mine is still working in the district and inshore fishing has sadly declined as a means of livelihood. There was full employment among the inhabitants throughout the year, an important factor in maintaining health, both physical and mental.

TABLE 2—Vital Statistics

CAUSES OF DEATH

	MALE	FEMALE
Tuberculosis, Respiratory	—	1
Tuberculosis, other	—	1
Syphilitic disease	1	1
Diphtheria	—	—
Whooping Cough	—	—
Meningo-coccal infections	—	—
Acute poliomyelitis	—	—
Measles	—	—
Other infective and parasitic diseases	—	—
Malignant neoplasm of stomach	1	—
Malignant neoplasm of lung, bronchus	4	1
Malignant neoplasm of breast	—	1
Malignant neoplasm of uterus	—	—
Other malignant and lymphatic neoplasms	4	3
Leukaemia	—	—
Diabetes	1	1
Vascular lesions of nervous system	8	9
Coronary disease, angina	15	4

TABLE 4—Vital Statistics—continued

CAUSES OF DEATH

		MALE	FEMALE
Hypertension with heart disease	....	—	—
Other heart diseases	....	3	6
Other circulatory diseases	....	—	1
Influenza	....	5	2
Pneumonia	....	—	2
Bronchitis	....	4	4
Other diseases of the respiratory system	....	—	1
Ulcer of stomach and duodenum	....	2	—
Gastro-enteritis and diarrhoea	....	—	—
Nephritis and nephrosis	....	—	1
Hyperplasia of prostate	....	1	—
Pregnancy, child-birth, and abortion	....	—	—
Congenital malformations	....	1	—
Other defined or ill-defined diseases	....	5	6
Motor vehicle accidents	....	—	1
All other accidents	....	3	2
Suicide	....	1	—
Homicide and operations of war	....	—	—
ALL CAUSES	....	59	48

Deaths

The deaths are classified under the thirty-six headings based on the Abbreviated List of the International Statistical Classification of Diseases, Injuries and Causes of Death, 1948. 107 deaths of residents give a death rate of 14.5 per thousand of the population; allowing for differing age and sex distribution the comparable death rate is 14.6 compared with 12.5 for England and Wales. Table 2 shows clearly what killed people in Loftus in 1951.

TABLE 3
Live Births

		MALE	FEMALE
Total	....	68	62
Legitimate	....	66	61
Illegitimate	....	2	1

Still Births

		MALE	FEMALE
Total	....	1	4
Legitimate	....	1	4
Illegitimate	....	—	—

Deaths of Infants
(under 1 year of age)

		MALE	FEMALE
Total	....	3	2
Legitimate	....	3	2
Illegitimate	....	—	—

Births

The number of births registered in the district during the year is 130, giving a birth-rate of 17.7 per thousand of the population, or a corrected one of 18.2 as compared to 15.5 for England and Wales. Five infants under the age of one year died, giving an infantile mortality rate of 38 per thousand live births compared to one of 29.6 for England and Wales. All the five infants who died were under four weeks of age except one.

SECTION II

Infectious Diseases

Table 5 shows the incidence of notifiable infectious diseases except tuberculosis.

Infantile Paralysis

In April I was approached by the Medical Research Council with a view to taking part in a research into the epidemiology of anterior poliomyelitis, or infantile paralysis. Loftus was among the towns chosen because it had apparently been free from the disease for the previous few years, though I had reason to consider that a case occurred in 1947 which had not been notified.

The purpose of the investigation was to discover whether the virus of poliomyelitis is excreted through the bowels of healthy carriers during the inter-epidemic period. For this purpose swabs were introduced into the sewers in various parts of the District and left there for three days; the experiments were repeated some two months later. The results as regards the District were entirely negative for the virus of poliomyelitis, but from one sewer it happened that one of the rarer types of salmonella paratyphoid B was recovered. I investigated the persons inhabiting the houses draining into this sewer, but was unable to find any connection with the previous known cases of this particular type in the North Riding or Tees-side; two possible carriers, however, had left the District without leaving their address.

Diphtheria

No case was notified. Immunization was available to children either at the hands of the family doctor or at the School Clinic of the North Riding Education Authority at Carlin How, while I was able to arrange sessions at the various schools where I gave reinforcing doses to children who had been immunized earlier in life.

TABLE 4

Immunization against Diphtheria

<i>Age Groups</i>			
0 to 4 years	....	....	86
5 to 14 years	....	....	11
Reinforcing doses	....	....	97

TABLE 5
NOTIFIABLE DISEASES, 1951
(other than Tuberculosis)

	All Ages	Under 1 year	1 year	2	3	4	5—	10—	15—	25—	35—	45—	65—
Scarlet Fever	7	—	—	—	—	1	5	—	—	1	—	—	—
Pneumonia	7	—	—	—	—	—	—	—	—	—	1	4	2
Erysipelas	2	—	—	—	—	—	—	—	—	—	—	1	1
Puerperal Pyrexia	2	—	—	—	—	—	—	—	—	2	—	—	—
Measles	177	4	9	27	16	22	98	1	—	—	—	—	—
Whooping Cough	89	8	9	16	15	14	22	4	—	—	1	—	—

Smallpox

Twenty-three immunizations were performed during the year all by the family doctors. This important preventive measure appears now almost disregarded.

Tuberculosis

Six new cases of respiratory tuberculosis were notified during the year. The rehousing of infectious consumptives has received the favourable consideration of the Local Authority on all occasions.

TABLE 6
Tuberculosis

AGE GROUPS		RESPIRATORY FORM		NON-RESPIRATORY FORM	
Years		Male	Female	Male	Female
0 to 4	....	—	—	—	—
5 to 9	....	—	1	—	—
15 to 19	....	—	1	—	—
20 to 24	....	—	1	—	—
25 to 34	....	—	—	—	—
45 to 54	....	2	1	—	—
65 to 74	....	—	—	—	—

SECTION II—Water Supplies

TABLE 7
Bacteriological Results
Cleveland Water Co. Treated Waters

No. of Sample	Date 1951	No. of colonies developing on Agar per ml. at 37° C. in 2 days	Presumptive Coliform Reaction from 100 ml.	Bact. Coli Type I from 100 ml.
1	23rd January	730	absent	absent
2	13th February	110	absent	absent
3	13th March <i>a</i>	1	absent	absent
4	13th March <i>b</i>	absent	absent	absent
5	13th March <i>c</i>	absent	absent	absent
6	14th August	absent	absent	absent
7	29th October	10	absent	absent
8	6th November	20	absent	absent

a. Upleatham Reservoir.

b. Lockwood Beck Reservoir.

c. Skelton Reservoir.

TABLE 8

**Chemical Results in parts per million
Cleveland Water Co.**

No. of Sample	..	....	No. 3	No. 4	No. 5
Date of Sample	....	....	13.3.51	13.3.51	13.3.51
Reaction pH	....	....	6.7	6.8	6.6
Total Solids	....	....	100	100	100
Chlorine as Chlorides	....	....	18	18	18
Hardness : Permanent	....	....	3.5	4.1	4.4 (degrees)
Temporary	....	....	0.3	0.3	0.3 (degrees)
Nitrogen as Nitrates	....	....	0.71	0.75	0.64
Free Ammonia	....	....	0.26	0.15	0.26
Albuminoid Ammonia	....	....	0.084	0.073	0.665
Oxygen absorbed in 4 hrs at 27° C.	....	....	1.5	0.8	1.3

Tables 7 and 8 show the satisfactory quality of the treated water delivered by the Cleveland Water Company. The results are in agreeable contrast with most of those in Table 9.

TABLE 9

Miscellaneous Waters—Bacteriological Results

Source	Date 1951	No. of colonies developing on Agar per ml. at 37° C. in 2 days	Presumptive Coliform Reaction from 100 ml.	Bact. Coli Type 1 from 100 ml.
Cowbar	23rd January	250	present	present
Cowbar	27th February	10	present	present
Cowbar	5th March	10	present	absent
Cowbar	13th March	1	absent	absent
Cowbar	17th September	10	present	present
Three Crosses Well (tap at Redhouse)	6th November	uncountable	present	present
Street Houses	17th September	710	present	present
Boulby Cottages No. 46	17th September	30	present	present
Pipe below Ings Farm	16th October	uncountable	present	present
Boulby Reservoir	16th October	less than 10	present	absent
Ings Farm	29th October	160	present	present
Tap in field in Boulby Barns	16th October	20	present	absent
6 Downe Street, Liverton Mines	17th September	30	absent	absent
Old Liverton	17th September	50	present	present
7 Westfield Terr., Loftus	12th November	4	present	present
Scaling School	30th January	100	present	absent
Thatchmire Farm	2nd June	100	present	present

Table 10

Miscellaneous Waters—Chemical Results in parts per million

(a) Sample taken at Cowbar on 13th March

Appearance: bright with a very slight yellow-brown deposit of ferruginous mineral debris			
		Turbidity (Silica Scale)	less than 3
Colour (hazen)	Nil	Odour	Nil
Reaction pH. On the acid side			
of neutrality	6.9	Free Carbon Dioxide	29
Electric Conductivity at 20° C.	440	Total solids, dried at 180° C.	295
Chlorine in Colonies	30	Alkalinity as Calcium Carbonate	160
Hardness: Total 210	Carbonate (Temporary) 160	Non-carbonate (permanent)	50
Nitrate Nitrogen	2.2	Nitrite Nitrogen	Absent
Ammoniacal Nitrogen	0.023	Oxygen absorbed in 4 hrs. at 27° C.	0.05
Albuminoid Nitrogen	0.000	Residual Chlorine	Absent
Metals: Iron	0.03	Other metals absent	

(b) Sample taken at No. 7 Westfield Terrace, Loftus, on 12th November

Appearance: slight opalescence with a slight yellow-brown deposit of finely divided siliceous particles			
		Turbidity (Silica Scale)	less than 5
Colour (hazen)	Nil	Odour	Nil
Reaction pH. On the acid side			
of neutrality	6.9	Free Carbon Dioxide	25
Electric Conductivity at 20° C.	395	Total solids, dried at 180° C.	265
Chlorine in Colonies	32	Alkalinity as Calcium Carbonate	140
Hardness: Total 185	Carbonate (Temporary) 140	Non-carbonate (Permanent)	45
Nitrate Nitrogen	1.8	Nitrite Nitrogen	Absent
Ammoniacal Nitrogen	0.000	Oxygen absorbed in 4 hrs. at 27° C.	0.05
Albuminoid Nitrogen	0.000	Residual Chlorine	Absent
Metals: Iron	0.12	Other metals absent	

Comments on the results in Tables 9 and 10 and the conclusions therefrom are given in Appendix A. Of the 2,369 houses 1,548 are supplied into the dwellings from the mains of the Cleveland Water Company, the statutory water undertaking; 330 into the dwellings from the mains of the Zetland Estates (South Loftus), of the Downe Estates (Liverton Mines), and of the Whitby Rural District Council; and 203 by means of standpipes. The remaining 288 derive their water from wells, streams or various small supplies serving a few houses.

SECTION IV

Inspection and Supervision of Food

At the Town Hall I gave a filmstrip talk on "Clean Food". The audience was composed of eleven persons, of whom the Chairman of the Public Health Committee was one, and Councillor H. Norminton, who most kindly loaned and worked the projector, was another; the remaining nine were foodhandlers, of whom a number were from one single food shop; and that meagre response was obtained notwithstanding that I had circularised every food retailer in the District. It is unlikely, therefore, that more food will be prepared and sold under more cleanly conditions as a result of further visual or verbal exhortations.

Food Poisoning Outbreaks

No outbreak of food poisoning was notified to me throughout the year.

Milk Supplies

There are twenty-six retail milk sellers registered.

Meat and Other Foods

There are six private slaughter houses in the district which are at present unused.

Adulteration, etc.

Of the articles sent by the Inspectors of the North Riding County Council for analysis from the district a sample of butter contained a slight excess of water, namely 0.12%, and a bottle of cough mixture, whose label stated that the mixture had 0.0543% of morphine hydrochloride, contained only 0.0145%.

Bakehouses

There are four bakehouses used in the district. Thirty-one inspections of these were carried out.

Fish Frying

There are ten fish frying premises in the district. These were inspected on seventy-three occasions.

Ice Cream

There are twelve premises registered for the sale of this foodstuff; none is manufactured in the district.

Byelaws

Byelaws made under Section 15 of the Food and Drugs Act 1938 for securing the observance of Sanitary and Cleanly Practices and Conditions in connection with the Handling, Wrapping and Delivery of Food and Sale of Food in the open air.

Regulation 20 of the Milk and Dairies Regulations 1949

No action was necessary under the above during the year.

SECTION V—Housing

I am indebted to Mr. E. Hollis, your Sanitary Inspector, for the figures produced in the table below.

TABLE 11
Housing Statistics

Number of New houses erected in 1951

(a) By the Council	....	....	....	....	68
(b) Other	....	....	....	....	1

1. *Inspection of dwelling-houses during the year*

(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	107
(b) Number of inspections made for the purpose	....	....	134
(2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 and 1932	....	....	9
(b) Number of inspections made for the purpose	....	....	14
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	....		12
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found to be not in all respects reasonably fit for human habitation	....	....	66

2. *Remedy of defects during the year without service of formal notices*

(1) Number of defective dwelling-houses rendered fit in consequence of informal action by the local authority or their officers			22
(2) Number of dwelling houses where work is in progress but not yet completed	....	....	5
(3) Number of Notices in course of preparation (not yet served)	....		1
(4) Number of Notices outstanding	....	....	2

Table 11—Housing Statistics—continued

3. *Action under Statutory Powers during the year*

A.	Proceedings under Sections 9, 10 and 16 of the Housing Act, 1936.			
(1)	Number of dwelling-houses in respect of which notices were served requiring repairs			12
(2)	Number of dwelling-houses rendered fit after service of formal notices			
(a)	By Owners	....	....	12
(b)	By local authority in default of owners	....	....	0
B.	Proceedings under Public Health Acts			
(1)	Number of dwelling-houses in respect of which notices were served requiring defects to be remedied			67
(2)	Number of dwelling-houses in which defects were remedied after service of formal notices			
(a)	By owners	....	....	67
(b)	By local authority in default of owners	....	....	0
C.	Proceedings under Sections 11 and 13 of the Housing Act, 1936			
(1)	Number of dwelling-houses in respect of which Demolition Orders were made			0
(2)	Number of dwelling-houses demolished in pursuance of Demolition Orders			0
D.	Proceedings under Section 12, Housing Act, 1936			
(1)	Number of separate tenements or underground rooms in respect of which closing orders were made			0
(2)	Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit			0

4. *Housing Act, 1935, Overcrowding*

(1)	(a)	Number of dwellings overcrowded at end of year	....	15
	(b)	Number of families dwelling therein	....	21
	(c)	Number of persons dwelling therein	....	88
(2)	Number of new cases of overcrowding reported during year			9
(3)	(a)	Number of cases of overcrowding relieved during the year	....	10
	(b)	Number of persons concerned in such cases	....	66
(4)	Particulars of any cases in which dwelling-houses have again become overcrowded after the Local Authority has taken steps for the abatement of overcrowding			Nil

SECTION VI

Sanitary Circumstances of the District

I give below a table of some of the sanitary work done during the year by your Sanitary Inspector, Mr. E. Hollis.

TABLE 12
Nuisance Inspections

Total No. of inspections made for nuisances only (not including housing inspections)	503
Nuisances found	117
Nuisances in hand, end of	
previous year	5
Notices served, informal	106
Notices served, statutory	16
Total number of summonses or other legal proceedings	Nil
Total needing abatement	122
Abated during year	110
Outstanding at end of year	12
Complied with	98
Complied with	12

Regulated Buildings, Trades, etc.

There are no common lodging houses, houses let in lodgings, knackers yards or tents, vans and sheds in the district.

Byelaws in force in the District

Building Byelaws, 21st August, 1939.

Closet Accommodation

There are 129 privies with fixed receptacles and 323 pail or tub closets in the district. In addition, there are 1,848 water closets. One privy was reconstructed during the year as a water closet, and fifteen closets other than privies. Sixty-nine water closets were constructed for new houses. The Council allows a grant of £3 10/- per conversion of privies or pail closets to water closets.

Scavenging

Public scavenging is in operation throughout the district. The refuse is disposed of by means of tipping. The present tip at Loftus is not maintained in accordance with the standards of Controlled Tipping. The matter is receiving the attention of the Council.

Shops Act, 1934, Sections 10 and 13

Sixty-three visits were paid under the above section. Unsatisfactory conditions were found in two instances and remedied.

Drainage and Sewerage

Extensions to the 6-inch and 9-inch sewers serving Liverton Mines Housing Estate were made. There is no sewage disposal works in the district, the sewage being discharged into the sea. A sewerage scheme for Cowbar is before the Ministry.

SECTION VII : Factories Act, 1937 and 1948

The following figures have been returned to the Director of Statistics, Ministry of Labour and National Service, regarding factories in the district.

TABLE 13

1. Inspections for the purposes of provision as to health (including inspections made by Sanitary Inspector)

Premises	No. on Register	No. of Inspections	No. of written Notices	Occupiers Prosecuted
(I) Factories in which Sections 1, 2, 3, 4, and 6 are to be enforced by Local Authorities	25	47	5	—
(II) Factories not included in (I) in which Section 7 is enforced by Local Authority	—	—	—	—
(III) Other premises in which Section 7 is enforced by the Local Authority (excluding out-workers' premises)	2 (Building Sites)	23	—	—
TOTAL	27	70	5	—

2. Cases in which defects were found

	Number of cases in which defects were found			
	Found	Remedied	Referred to H.M. Inspector	By H.M. Inspector
Want of cleanliness	3	3	—	—
Inadequate ventilation	1	1	—	—
Ineffective drainage of floors	1	1	—	—
Sanitary inconveniences (a) insufficient	—	—	—	—
(b) unsuitable or defective	—	—	—	—
TOTAL	5	5	—	—

Report to the Port Sanitary Authority for the year 1951

I beg to state that during the year no vessel entered or left the Port of Skinningrove.

APPENDIX A

*To the Chairman and Members of the Public Health Committee,
Loftus Urban District Council*

MR. CHAIRMAN, MADAM AND GENTLEMEN,

WATER SUPPLIES

When some two months ago you requested me to report on the various private supplies in the district I was under the impression that the present unsatisfactory position would be remedied to a considerable extent by the completion of the Scaling Reservoir at the end of five or six years. Work has not begun at Scaling and at the present moment, I am told, the question of postponing the Scheme is under consideration pending the review of the financial state of the nation.

Apart from the statutory water undertaking, the Cleveland Water Company, whose supply is not at all times adequate and with the increasing use of water in the district will become still more inadequate unless the Scaling Scheme is carried out, there are numerous small supplies varying in size from that serving a single dwelling to that supplying communities of appreciable size. Except in the case of the Cleveland Water Company, none of these supplies are subjected to purification by the three procedures that form the essential part of current practice regarding any sizeable supply. These procedures are:—

- (1) Storage.
- (2) Effective filtration.
- (3) Effective chlorination as a final safeguard before delivery to the consumer.

At present reliance must be placed entirely on one's opinion of the gathering ground and of the analyses, chemical and bacteriological. And the question must be asked in the case of each supply and answered if possible:—

Is the gathering ground free from human pollution or potential human pollution? For typhoid bacilli are passed in the excreta and urine, not only of those suffering from typhoid fever, but also of a certain number of those who have recovered from typhoid fever but remain carriers of the bacilli. I mention typhoid fever because it is the chief water-borne disease in this country. Typhoid fever was fairly prevalent in Britain up to the middle of the first decade of the century; it has declined since then because we have become more careful with our water supplies, so that to-day it is a rare disease in Britain. We do not know how many typhoid carriers there are in the country; I read the other day that it is suggested 1 per 20,000 of the population; whatever their number we know they exist because from time to time they are responsible for outbreaks of typhoid fever through contaminated milk, water or food.

In the town of Loftus there are in addition to the statutory supply of the Cleveland Water Company two private supplies, one that of the Zetland Estates and the other that of the Downe Estates. I shall deal with the Zetland Supply first:—

It is delivered to 181 houses. Its source is a spring situated amidst manured agricultural land between South Loftus and Hollywell Farm. The spring gushes up into a brick chamber which is in a good state of repair. A sample taken after prolonged heavy rain on the 12th November, 1951, showed a water of the highest degree of chemical purity; bacteriologically, however, it contained faecal bacilli coli, or in other words matter of excremental origin. In view of the chemical analysis I consider that the faecal B. Coli are derived from surface washing due to the heavy rain. But is the supply free from potential human pollution? There's the rub, for I have to prove a negative, a most difficult thing to do satisfactorily, because at some time or another some agricultural worker, hiker or camper suffering from typhoid, or being a carrier of the bacilli, might choose to defaecate or urinate in the field above the spring just at a period of heavy rainfall and the typhoid bacilli might be washed into the spring. Each of us can decide for himself whether drinking this water is a risk a reasonable man would run, but obviously it is impossible for anyone to say that such pollution might not take place.

I shall now deal with the supply of the Downe Estates serving 146 houses in that part of Loftus known as Liverton Mines. It is derived from a spring to the west of the road from Liverton Mines to Liverton. All the analyses I have taken, both chemical and bacteriological, show a water of the highest degree of purity, but I have not taken samples under all conditions of rainfall; after all, Liverton Lodge lies at a higher level than the spring so I cannot regard the gathering ground as entirely above suspicion, however good the analyses may be.

In any case it is obviously anomalous that the town of Loftus should have three supplies, one of which, that of the Cleveland Water Company, is subjected to current methods of purification while the other two are delivered unpurified to the consumer. Quite frankly, to attempt effectively to treat either of these two private supplies would be, in my opinion, out of all proportion to the value of each.

I now proceed about one and a half miles southwards to the village of Liverton, or Old Liverton as it is now called—apparently to distinguish it from the suburb of Loftus known as Liverton Mines. This is a rural community comprising some thirty houses. The water supply is derived from two sources, one from a bed of sand some 80 yards below the farm of Golden Hill; the other from a spring above the beck in Gerrick Wood. I have no use at all for the first source; I have never yet had a satisfactory analysis from it and its proximity to Golden Hill condemns it forthwith. Regarding the second source, the gathering ground is in my opinion free from human pollution; the analyses of the water both chemical and bacteriological show a water of the highest degree of purity. The water is lifted by a ram, a mechanism that at its greatest efficiency only raises a third of the water available so that at present this supply is inadequate for the needs of Liverton. Its potential pollution by the agricultural labourer, the hiker or the camper

fouling the gathering ground has always to be borne in mind; it would, however, be quite uneconomical to attempt effectively to treat this water. A petrol driven pump would raise considerably more water; it must be borne in mind that the farm of Far Gerrick gets its supply from this source, so I understand.

The community of Sealing is supplied by a variety of wells, some of them to my knowledge polluted and all liable to pollution and in dry spells all inadequate. I understand that this community, or at least part of it, is going to be supplied by the new water scheme of the Whitby Rural District Council. I have not seen any pipes laid as far as Sealing but I am assured that they will be when the pipes are available.

I shall now proceed to the community of Cowbar which lies on the west bank of the beck opposite Staithes. This community of some forty-six houses is periodically short of water which is derived from the supply of the Whitby Rural District, nor is it always free from faecal B. Coli. When the Whitby Rural District's new scheme is completed I hope the position at Cowbar will be improved; I suggest that a 3-inch pipe be laid along the viaduct to Cowbar in place of the present 1-inch pipe.

I now turn westwards and proceed towards Loftus. Before I arrive at Boulby, there are six scattered dwellings, one of which is in the Whitby Rural District, supplied by a well whose venerable name indicates its antiquity—The Three Crosses Well. It lies just below the main road. An analysis of this water taken after heavy rain showed a grossly polluted supply, possibly from surface washings, but with such a degree of pollution discrimination is impossible or at least unwise.

The community of Boulby is supplied by a well or spring above Ings Farm. After heavy rain in November, 1951, this water was turbid so it is unnecessary to discuss its potability further.

The supplies to Easington are somewhat complicated. What analyses I have are satisfactory, but the hamlet was woefully short of water in 1949.

Street Houses, Upton, Micklow derive their supply from a spring one hundred yards below the dwellings at Arthurfield. They were short of water for long periods in 1949-50. Here again after heavy rain the water contains faecal B. Coli which is not surprising since, apart altogether from the houses, the field in which lies the spring is grazed by horses and cattle. The Zetland Estates, however, have promised to fence off a larger area of ground surrounding the spring.

So far I have not dealt with individual dwellings; quite frankly I do not pretend to know all these single supplies. The ones I know vary from the purest of springs to grossly polluted sources in the midst of farmyards or the ooziings of bogs; or water from polluted becks; and many of such are the supplies of milk producers! In the case of small supplies no doubt something could be done by seeing that the covers of cisterns, wells, etc. were fitting tightly and the linings of wells, cisterns, etc. were rendered with impermeable material; that would do something to keep out gross surface filth in times of heavy rainfall.

The real solution is not the perpetuation of small, antiquated and uneconomic supplies, many of which are not of satisfactory purity or at least not at all times of satisfactory purity, but the provision of more water under constant and adequate treatment and supervision as is provided by the Cleveland Water Company.

Perhaps it may be felt that I have made no immediate constructive suggestions regarding the position, but the effective answer is the commencement and completion of the Scaling Scheme. When that is completed the two private supplies to the town of Loftus should be abolished; furthermore, the mains should be extended to supply Old Liverton towards the south, Easington, Boulby, Street Houses, Upton and Micklow towards the east and north. These in my opinion are the minimum requirements. But what is to be done meanwhile. No doubt if the ram in Gerrick Wood were replaced by a more efficient means of lifting the water the unsatisfactory Golden Hill Supply could be cut off so that Liverton would get a better water. That certainly is an expedient, but I do not like recommending expedients; in my experience he who advises should take the long view—the proper procedure is to extend the main to Liverton when sufficient water is available from Scaling. Finally, the Committee may feel after due deliberation that they are carrying a heavier burden of responsibility than they care to carry and so may resolve to circularise all the householders, except those on the Cleveland Water Company's supply and those already circularised, advising them to boil the water. I would add that boiling the water is easy to recommend, but memories are short; and such a tedious procedure resulting in an unpalatable drink is soon abandoned by most householders.

Your obedient servant,

W. H. BUTCHER,

Medical Officer of Health.

Area Health Office,

Brotton, Saltburn.

1st February, 1952.

[Faint, illegible handwritten text]